UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/648,499	08/25/2003	Robbert C. Van der Linden	SVL920030052US1/2863P	4213

45728	7590	09/19/2006

SAWYER LAW GROUP LLP
P.O. BOX 51418
PALO ALTO, CA 94303

EXAMINER
RADTKE, MARK A

ART UNIT	PAPER NUMBER
2165	

DATE MAILED: 09/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/648,499	LINDEN, ROBBERT C. VAN DER
	Examiner	Art Unit	
	Mark A. X Radtke	2165	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 June 2006*.

2a)☒ This action is **FINAL.** 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-31* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Remarks

1.   In response to communications filed on 27 June 2006, claim(s) 1-8, 10-18 and

20-31 is/are amended per Applicant's request. Therefore, claims 1-31 are presently

pending in the application, of which, claim(s) 1, 11, 21 and 24 is/are presented in

independent form.

2.   In light of Applicant's amendments, the objections to the claims have been

withdrawn. In light of Applicant's amendments and arguments, the rejections under 35

U.S.C. 101 have been withdrawn.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4.   Claims 1-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Damiani

et al. ("Design and implementation of an access control processor for XML documents",

Published in "Computer Networks", Vol. 33, Issues 1-6, Pages 59-75. Available online at

at http://www.sciencedirect.com/science?_ob=MImg&_imagekey=B6VRG-40B2JGR-7-

Y&_cdi=6234&_user=2502287&_orig=browse&_coverDate=06%2F30%2F2000&_sk=9

99669998&view=c&wchp=dGLbVlb-

zSkzk&md5=ccc8253d4443baa1b88aed3a8262a7b9&ie=/sdarticle.pdf).

As to claim 1, <u>Damiani et al.</u> teaches a method for performing path-level access

control evaluation for a structured document, wherein the structured document

comprises a plurality of nodes and each of the plurality of nodes is described by a path

(see page 63, section 3.1, "Identifying authorization objects via path expressions"), the

method comprising the steps of:

a) storing an access control statement in a cache entry (see page 68, section

5.3, "Performance and caching") for a path associated with a node of the plurality of

nodes (see page 65, section 3.1, "Identifying authorization objects via path

expressions");

b) receiving a query, wherein the query comprises a request to access the node

(see page 67, section 5, "Design and implementation guidelines", paragraph 2, lines 6-

9);

c) checking the cache entry for the path associated with the node (see page 66,

section 4, "Authorization enforcement", lines 10-13 and page 68, section 5.3,

"Performance and caching", lines 11-12); and

d) granting or denying access to the node based on the access control statement

in the cache entry for the path associated with the node (see page 66, section 4,

"Authorization enforcement", lines 1-5).

As to claims 2, 12 and 28, Damiani et al. teaches wherein the access control

statement is one of a grant statement (see page 66, section 4, "Authorization

enforcement", line 32, "'+' (permission)"), a deny statement ("'-' (denial)"), an unknown

statement (line 33, "'ε' (no authorization)") and a data-dependent statement (see page

63, section 3, "Authorizations", bullet-point 1, where "data-dependent statement" is read

on "specific documents").

As to claims 3 and 13, Damiani et al. teaches wherein step (d) further comprises:

(d1) granting access to the node responsive to the access control statement

being a grant statement (see page 66, section 4, "Authorization enforcement", lines 1-

5).

As to claims 4 and 14, Damiani et al. teaches wherein step (d) further comprises:

(d1) denying access to the node responsive to the access control statement

being a deny statement (see page 66, section 4, "Authorization enforcement", lines 1-5).

As to claims 5 and 15, <u>Damiani et al.</u> teaches wherein step (d) further comprises:

(d1) evaluating an access control policy affecting the path in response to the access control statement being an unknown statement (see page 68, section 5.3, "Performance and caching", line 1 – page 69, line 5);

(d2) granting access responsive to a result of the evaluation granting access (see page 66, section 4, "Authorization enforcement", lines 1-5); and

(d3) denying access responsive to the result of the evaluation denying access (see page 66, section 4, "Authorization enforcement", lines 1-5).

As to claims 6 and 16, <u>Damiani et al.</u> teaches further comprising:

(e) determining whether the access control policy affecting the path is data-dependent (see page 63, section 3, "Authorizations", bullet-point 1, where "data-dependent" is read on "instance");

(f) changing the access control statement in the cache entry from the unknown statement to a grant statement or a deny statement based on the evaluation in response to the access control policy being data-independent (see page 68, section 5.3, "Performance and caching", line 1 – page 69, line 5); and

(g) changing the access control statement in the cache entry from the unknown statement to a data-dependent statement in response to the access control policy being data-dependent (see page 68, section 5.3, "Performance and caching", line 1 – page 69, line 5).

As to claims 7 and 17, <u>Damiani et al.</u> teaches wherein step (d) further comprises:

(d1) evaluating an access control policy affecting the path in response to the

access control statement being a data-dependent statement (see page 63, section 3,

"Authorizations", bullet-point 1, where "data-dependent" is read on "instance");

(d2) granting access responsive to a result of the evaluation granting access (see

page 66, section 4, "Authorization enforcement", lines 1-5); and

(d3) denying access responsive to the result of the evaluation denying access

(see page 66, section 4, "Authorization enforcement", lines 1-5).

As to claims 8 and 18, <u>Damiani et al.</u> teaches further comprising:

(e) repeating steps (c) and (d) for a next node in the plurality of nodes (See page

69, lines 2-5, section 5.3, "Performance and caching". The entire document is

transformed, so each node must be transformed).

As to claims 9 and 19, <u>Damiani et al.</u> teaches wherein evaluating step (d1)

further comprises:

(d1i) evaluating a value expression for the path associated with the node,

wherein the value expression is an executable statement based on the access control

policy affecting the path and indicates who has access to the node (see page 70,

section 6.1, "The role of encryption").

As to claims 10 and 20, <u>Damiani et al.</u> teaches wherein steps (c) and (d) are performed during run-time (See page 68, section 5.2, "Execution phases", column 2, final paragraph. It is implied that the execution steps take place on-demand; that is, at run-time.).

As to claim 11, <u>Damiani et al.</u> teaches a computer readable medium containing a computer program for performing path-level access control evaluation for a structured document, wherein the structured document comprises a plurality of nodes and each of the plurality of nodes is described by a path (see page 63, section 3.1, "Identifying authorization objects via path expressions"), the computer program comprising programming instructions for:

For the remaining steps of this claim applicant(s) is/are directed to the remarks and discussions made in claim 1 above.

As to claim 21, <u>Damiani et al.</u> teaches method for performing path-level access control evaluation for a structured document, wherein the structured document comprises a plurality of nodes and each of the plurality of nodes is described by a path (see page 63, section 3.1, "Identifying authorization objects via path expressions"), the method comprising the steps of:

a) storing an access control statement in a cache entry for a path associated with a node of the plurality of nodes (see Examiner's comments regarding claim 1), wherein the access control statement is one of a grant statement, a deny statement, an

unknown statement and a data-dependent statement (see Examiner's comments

regarding claim 2);

b) receiving a query, wherein the query comprises a request to access the node

(see Examiner's comments regarding claim 1);

c) checking the cache entry for the path associated with the node (see

Examiner's comments regarding claim 1);

d) granting access to the node responsive to the access control statement being

a grant statement (see Examiner's comments regarding claim 3);

e) denying access to the node responsive to the access control statement being

a deny statement (see Examiner's comments regarding claim 4); and

f) evaluating a value expression for the path associated with the node to produce

a result in response to the access control statement being an unknown statement or a

data-dependent statement (see Examiner's comments regarding claim 2),

wherein the value expression is an executable statement based on an access

control policy affecting the path and indicates who has access to the node (see

Examiner's comments regarding claim 1).

As to claims 22 and 25, <u>Damiani et al.</u> teaches further comprising:

g) granting or denying access to the node based on the result of the evaluation

(see page 66, section 4, "Authorization enforcement", lines 1-5);

h) changing the access control statement in the cache entry from the unknown

statement to a grant statement or a deny statement based on the result of the

evaluation in response to the access control policy being data-dependent (see page 68, section 5.3, "Performance and caching", line 1 – page 69, line 5); and

i) changing the access control statement in the cache entry from the unknown statement to a data-dependent statement in response to the access control policy being data-dependent (see page 68, section 5.3, "Performance and caching", line 1 – page 69, line 5).

As to claims 23 and 26, <u>Damiani et al.</u> teaches further comprising: j) repeating steps (c) through (i) for a next node in the plurality of nodes (See page 69, lines 2-5, section 5.3, "Performance and caching". The entire document is transformed, so each node must be transformed).

As to claim 24, <u>Damiani et al.</u> teaches a computer readable medium containing a computer program for performing path-level access control evaluation for a structured document, wherein the structured document comprises a plurality of nodes and each of the plurality of nodes is described by a path (see page 63, section 3.1, "Identifying authorization objects via path expressions"), the computer program comprising programming instructions for:

For the remaining steps of this claim applicant(s) is/are directed to the remarks and discussions made in claim 21 above.

As to claim 27, <u>Damiani et al.</u> teaches a system for performing path-level access control evaluation for a structured document, wherein the structured document comprises a plurality of nodes and each of the plurality of nodes is described by a path (see page 63, section 3.1, "Identifying authorization objects via path expressions"), the system comprising:

For the remaining steps of this claim applicant(s) is/are directed to the remarks and discussions made in claim 21 above and see also Figure 1.

As to claim 29, <u>Damiani et al.</u> teaches further comprising:

an access control mechanism coupled to the database management system, the access control mechanism being operable to determine access control to the node responsive to the access control statement being an unknown statement (see Examiner's comments regarding claim 5) or a data-dependent statement (see Examiner's comments regarding claim 6).

As to claim 30, <u>Damiani et al.</u> teaches wherein the access control mechanism is further operable to generate a value expression for the path associated with the node based on an access control policy affecting the path, and wherein the database management system is further operable to evaluate the value expression for the path to determine whether to grant or deny access to the node (see Examiner's comments regarding claim 9).

As to claim 31, <u>Damiani et al.</u> teaches wherein the database management

system is further operable to change the access control statement in the cache entry

from the unknown statement to a grant statement or a deny statement based on a result

of the evaluation of the value expression responsive to the value expression for the path

being data-independent and to change the access control statement in the cache entry

from the unknown statement to a data-dependent statement responsive to the value

expression for the path being data-dependent (see page 70, section 6.1, "The role of

encryption" and see page 68, section 5.3, "Performance and caching", line 1 – page 69,

line 5).

Response to Arguments

5.   Applicant's arguments filed on 27 June 2006 with respect to the rejected claims

in view of the cited references have been fully considered but are not deemed

persuasive.

In response to Applicant's arguments that "Damiani does not disclose, teach, or

suggest "storing an access control statement in a cache entry for a path associated with

a node of the plurality of nodes"", the arguments have been fully considered but are not

deemed persuasive. Applicant argues that <u>Damiani et al.</u> teaches storing the "structured

document" (XML file) and not the "access control statement". The cache of <u>Damiani et</u>

<u>al.</u> does not store the structured document in un-parsed, "plain-text" form (page 68,

section 5.2, step 4, "Unparsing"); the structured document is "parsed, labeled, [and]

transformed" and stored in a data structure when cached. See page 69, column 1, lines

2-5. The term "otherwise" implies that the cache stores documents in a data structure

and not plain text. Fig. 5 clearly indicates the "transformed" document being parsed into

trees comprised of nodes (see Figure 5, the tree to the left of box "3. transformation").

In response to Applicant's arguments that Damiani et al. "does not disclose,

teach, or suggest "granting or denying access to the node based on the access control

statement in the cache entry for the path associated with the node," as recited in claim

1, since it only discusses using DTD-level and document-level authorizations to

determine what a requester sees", the arguments have been fully considered but are

not deemed persuasive. After the cited portion of the reference, Damiani et al. goes on

to say "the analysis [...] produces an access decision (access or not access) **on each**

node of the document" (emph. added. See page 66, section 4, lines 16-19). Section 4,

when considered in its entirety, contains several such references to per-node access

control assignments. For example, see page 66, column 2, number (1), "Authorizations

on a node", emph. added.

Conclusion

6.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

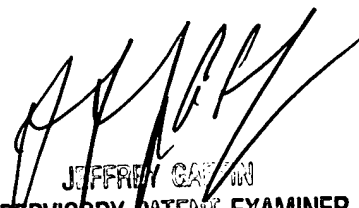than SIX MONTHS from the date of this final action.

7.   Any inquiry concerning this communication or earlier communications should be

directed to the examiner, Mark A. Radtke. The examiner's telephone number is (571)

272-7163, and the examiner can normally be reached between 9 AM and 5 PM,

Monday through Friday.

If attempts to contact the examiner are unsuccessful, the examiner's supervisor,

Jeffrey Gaffin, can be reached at (571) 272-4146.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to Customer Service at (800) 786-9199.

maxr
***

JEFFREY GAFFIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

12 September 2006